REVISED SPECIAL AIRWORTHINESS INFORMATION BULLETIN

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http://www.faa.gov/aircraft/safety/alerts/SAIB

This is information only. Recommendations aren't mandatory.

Introduction

In order to enhance the inspection and maintenance of **Schweizer Tow Hook Models 1D112-15 and 1D112-16**, this Special Airworthiness Information Bulletin alerts you, owners and operators of aircraft with these installed mechanisms, of specific details to review when evaluating their condition. These tow hooks may be installed on, but not limited to, the following aircraft models:

Manufacturer	Models	STC
Cessna	120, 140, 140A, 170, 170A, 170B, 305A through 305C airplanes	SA268CE
	180, 180A through 180F, 185, 185A, 185B, and 321	SA65CE
Piper	PA-18 and PA-18A	SA1-349

Background

We have received requests from the gliding community to establish specific instructions for evaluating and maintaining these specified tow hooks. There are no standards of airworthiness for these units. Schweizer no longer produces these tow hooks or stocks spare parts.

Schweizer produced several predecessors and variants to the 1D112-15 and 1D112-16 that have similar functionality. Our recommendations apply to these prior units.

Recommendation

We recommend that all owners and operators of aircraft with Schweizer tow hook models 1D112-15, 1D112-16, or similar version installed, implement the following course of actions prior to the next tow operation and at each 100-hour/annual inspection, unless otherwise stated:

1. Inspect the entire tow hook system for loose or worn pivot pins, damaged fasteners, elongated holes, cracks, corrosion, surface damage, excessive wear, deformed parts, frayed rope/cable, rubber block damage, and freedom of operation. ***Note that ozone and heat can have detrimental effects on rubber.*** Look for excessive hardness of the material as well as permanent indentation created by contact with the hook lever.

2. Perform a Closing Check by verifying a sufficient force is required to compress the rubber block with the pivot hook and the pivot hook applies sufficient locking load against the latch arm after the latch arm is engaged. Verify that the movement of the latch arm toward the release position causes additional compression of the rubber block (original shape of rubber block is maintained).

3. Perform a no-load Pull Test at the release arm to verify 4 to 10 lbs of pull load is required for release, per Schweizer Form F-236, Rev. 9-18-84. If you cannot obtain a release load within the specified range, replace the rubber block because it is worn or deformed. Since replacement parts and manufacturing specifications for the rubber block are not available, we recommend you remove and replace the tow hook assembly with an approved and serviceable tow hook system.

4. For a periodic inspection, you should perform the Closing Check during **each** hookup of the tow rope/ring. You should perform the Closing Check and Pull Test with a standard tow ring in the hook.

NOTE: There is concern about the inability to release the towline from the tow plane when the glider operates above a certain angle to the tow plane. FAA Advisory Circular 43.13-2A, Chapter 8, Section 2, Figure 8.1 recommends a 20-degree cone of displacement for towing operation. In addition, the FAA Glider Flying Handbook, document number FAA-H-8083-13, specifies recommended launch and recovery procedures. **All tow plane and glider pilots should review these operations on a recurring basis.**

For Further Information Contact

Gregory Davison, Aerospace Engineer, FAA Small Airplane Directorate, Room 301, 901 Locust, Kansas City, Missouri 64106; telephone: (816) 329-4130; facsimile: (816) 329-4090; email: Gregory.Davison@faa.gov

Schweizer Form F-236, Rev. 9-18-84, "Installation Notes and Safety Instructions" is available on Schweizer's web site at: http://www.sacusa.com/support/ServiceLetter/F-236.pdf